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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/476,416	12/30/1999	Iksoo Pyo	042390.P7452	7822

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EXAMINER

DINH, PAUL

ART UNIT

PAPER NUMBER

2825

DATE MAILED: 09/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/476,416

Applicant(s)

PYO ET AL.

Examiner

Paul Dinh

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 15 April 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

The applicant remarks filed 8-5-02 are partially persuasive; therefore, the previous art rejections have been withdrawn. However, new grounds of rejections have been cited in this office action and the previous allowable subject matter has been withdrawn in view of the newly discovered prior art.

#### *Drawings*

This is a third reminder that this application has been filed with informal drawings, which are acceptable for expediting the application acceptance process only, submitting formal drawings is required.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

*(e) The invention was described in-*

*(1) An application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or*

*(2) A patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).*

Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Raman et al. (USP 5987086). Raman discloses a method/apparatus/medium comprising:

(Claims 1-2, 9, 15, 20, 22, 27)

identifying partial feasible routing solutions corresponding to each of a subset of wires to be routed (c25 or c37 or fig 28 and/or 29 and/or 30 and/or 31 and/or 33);

merging the partial feasible routing solutions to identify one or more feasible routing solutions for the set of wires to be routed (c36: 36+ or c37 or 28 and/or 29 and/or 30 and/or 31 and/or 33).

*(Note that the limitations:*

*a. "a maze router" and "a deferred merging router" in claim 22 are merely the intended use; therefore, they cannot be relied upon to define over prior art that meets the claimed limitation Just for the applicant information, Raman teaches a Maze router in c36: 35+; and*

*b. "that do not conflict" in claim 15 is merely a result; therefore, it cannot be relied upon to define over prior art that meets the claimed limitation)*

(Claims 3-4, 16, 21, 28-29) fig 1 or 6 teaches user and Col 37 and/or fig 10 or 12 or 15-16 or 19 or 28 or 33 teaches user and cost function. Note that the limitations "first/second user/one or more users"

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are merely the intended use; therefore, they cannot be relied upon to define over prior art that meets the claimed limitation.

(Claims 5, 17, 30) Col 37 or software/algorithms used fig 1 or 6 or 17 or 28 or 29 teach routing solutions are limited to a first and a second numbers.

(Claim 6) C37: 40+ and/or fig 1 or 6 and it software/algorithms used fig 1 or 6 or 17 or 28 or 29 teaches the limitation in claim 6.

(Claims 7, 11) C35: 39, c41: 41+, c42: 16+ and/or c43: 42+ and/or fig 43-44 teaches the limitation in claim 7. Note that "Hanan" is merely the intended use; therefore, it cannot be relied upon to define over prior art that meets the claimed limitation.

(Claim 8) C37 or fig 8 or 30 or 40 teaches the limitation in claim 8

(Claim 10) C37 or fig 6 and/or fig 28 and/or fig 30 teaches the limitation in claim 10

(Claims 12-14, 19, 26) C37: 40+ and/or C25: 10+ and/or c35-36 and/or fig 10, 12 or 19 teach routing solution by the cost. Note that the limitations "*first/second user/engine or one or more users*" are merely the intended use; therefore, they cannot be relied upon to define over prior art that meets the claimed limitation.

(Claim 18) fig 40 or c44: 13 show a tree structure.

(Claim 23) col 17 and/or 37-38 teaches the limitation in claim 23.

(Claims 24-25) the maze router and the deferred merging router are *merely* the intended use; therefore, they cannot be relied upon to define over prior art that meets the claimed limitation.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Dinh whose telephone number is (703) 305-5662. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (703) 308-1323. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number 703-308-1782.

Paul Dinh

Patent Examiner

August 28, 2002



MATTHEW SMITH  
SUPERVISORY PATENT EXAMINER  
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